Be connected on the go: not anytime - not anywhere

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ABSTRACT
How do people stay connected and how are the methods of communicating while on the go evolving? How available do people want to be? How often do they use the Internet and/or their laptop and for which purposes? In a comparison of extremely and average mobile people we have found that most of them in both groups did not want to be available anytime, anywhere. This demonstrates that people are well aware of appropriate and less appropriate times and places for laptop and Internet use.

Most research papers about the usage of ICT (Information and Communication Technology) on the go relate to private usage of technology. On the opposite, this paper concentrates on business users.

Author Keywords
ICT, mobile phones, computers, mobility, travel, always on, connected on the go, ubiquitous computing, nomadic working, business users, small companies, advanced users, mobile users

ACM Classification Keywords

Human Factors, K. Computing Milieux, K.4 COMPUTERS AND SOCIETY, K.4.3 Organizational Impacts, K.4.m Miscellaneous

INTRODUCTION
To foresee the adoption of a new service is not an easy task. One approach is to compare behaviours of "advanced users" (lead users) with "average users." To that end, we initiated a study about routines people develop in order to keep in touch with family, friends, work and third parties while on the go. The goal was to gain a deeper understanding of what drives or hinders people to use ICT while away, especially in business contexts. For instance, do they want or have to be instantly available or do they prefer to screen their communication in order to control costs or be more efficient? In addition, we strove to elicit service trends and improvements from the observations.

STUDY SET UP: OBSERVE AND ASK EXTREMELY MOBILE AND AVERAGE MOBILE PEOPLE
In this study, we compared two user groups: average mobile people (AMP) and extremely mobile people (EMP).

For the first group, AMP, data from about 30 small to medium Swiss companies were collected. In each company, we met with various employees totalling up to 100 individuals. The type of professions represented in the AMP ranged from architects to truck drivers, and from salespeople to directors.

The second group, EMP, consisted of people travelling at least 50% of the time and frequently using ICT. They were typically journalists, pilots, and businessmen.

We spent one to three hours interviewing and observing each person in his or her daily work and/or home environments. This allowed to double check the veracity of their answers and to gather a large amount of information about their behaviours and practices. For instance, we visited a transport company and spent two hours watching a logistics specialist taking in customer orders and dispatching them to a fleet of 30 trucks. By watching him become flustered as he took calls every two minutes, we were quickly convinced that some potential ordering system improvements were necessary. We covered with them a wide range of topics from an introduction about the company, work processes to ICT infrastructure and usage.

RESULTS

Travel experience or a typical mobile day

There were several intriguing comparisons drawn between the AMP and EMP groups regarding attitudes towards travel, ICT equipment and ICT usage. Travel of AMP is local and is limited to a couple of hours per day. Typically, AMP go to the office in the morning, travel during the day, and pass back by the office in the evening before going home.

For EMP, travelling is an integrated part of their lives. They are often gone for longer periods of time.

It is the journalist that goes abroad for days or weeks for a report or the flight captain who leaves the continent and is away for an entire week.

The type of travel has a direct impact on the equipment people own and on how they use it.

ICT equipment: A lifestyle for EMP - Work tools for AMP

For AMP, mobile phones have become commonplace. Excluding professionals within consultancy, architecture and graphic design, AMP generally did not use laptops on the go.

On the other hand, EMP carry a much wider range of equipment when travelling and are very skilled users, even though the essential travel kit remains the laptop and the mobile phone. Their ICT equipment enables them to be self-sufficient in terms of communication and entertainment. It allows them to keep in touch with their business colleagues, family and friends in the most economical way.

It is also a part of their private sphere that is always present. For instance, they select and store music, radio programs and movies to consume during their trips. Mobile technologies and services have become a part of their lifestyle leading to a seamless integration of private and professional life.

One of the participants (a pilot) stated, "I use my phone and laptop the same way when at home and when travelling abroad. For example, at home I use my mobile phone rather than the landline, and I will take a call from a neighbour even when I am in NYC on a Sunday morning. It is quite expensive but it allows me to keep in touch with my family and friends anytime. I have a different work schedule every week so these tools provide continuity in my private life."

Availability: Screened or unlimited?

Surprisingly, when it comes to being available, few differences were noticed between AMP and EMP.

People do not want to be contacted anytime, anywhere but rather would like control of their accessibility when on the go. People actually often develop tricks and habits to filter calls and messages.

There are three principal reasons for screening calls. First, people want to ensure an optimal quality of communication. Second, solid relationships with business partners allow delayed responses. An interviewee (a journalist) claimed, "It doesn't make any sense to answer a phone call from a partner while I am abroad. I probably won't be able to provide him with the right answer because I won't have the right information at hand. Therefore, I barely forward the calls from my landline to my mobile phone when I travel. My partners know that if I do not answer, it means I am travelling and will call them back in a couple of days." The last main reason for filtering calls concerns costs, especially for EMP. EMP feel they are poorly informed of the cost of mobile phone or Internet communication, particularly when they are in a foreign country. They also feel completely abused by Telecom operators. Therefore, they are very refined in using a wide range of strategies to avoid the very high international roaming and WLAN costs. Frequent travellers often juggle several SIM cards and mobile phones and even look for locations with free hot spots. Basic services they regularly use include SMS, VoIP types of services (Voice over IP) and IM (Instant Messaging). They are also adept at using a sort of a Morse code: for example, two rings mean I have arrived safely.

Internet and laptop: Very selective usage on the go

The study revealed a very selective usage of laptops and the Internet while on the go and even after arrival at a destination. As previously mentioned, people often carry their laptops while travelling.

However, there are places and times that are apparently more appropriate than others to use a laptop.

First of all, there is the issue of norms and customs. Many professionals still consider it inappropriate or impolite to open a laptop during a meeting especially with customers. Customers might perceive that they are dismissed or not listened to. This explains, for instance, why we hardly saw any salespersons attempting to access their company intranet to check stocks availability while they were on their customers' premises.

Second, people optimise their work according to the work context. There are tasks which are more appropriate to do before and after a trip rather than during a trip. For instance, more complex tasks are done before or after a trip. EMP dedicate time prior to a trip to prepare the work and activities they will do while travelling and at destination. This might be a file to review during a flight, a music play list for the train ride, a template to write the minutes of a meeting or a movie to watch in their hotel room. AMP behaved similarly; they pass by the office in the morning to prepare for a meeting and pass back by the office in the evening to do all the administrative follow-up of the meeting.

Opening a laptop to use the Internet appears to be worth only if a reasonable amount of time and comfort are

available. For instance, a short bus or train ride and waiting times at train stations and airports create insufficient conditions to begin using a laptop. For EMP, this is even more pronounced due to their more extreme travel conditions. Today, it is quicker to travel than it was 10 years ago but the quality of the travel experience has decreased: People have to queue everywhere, at the check-in desk, at the security check, and at customs. They lack the mental and physical comfort or the privacy to work efficiently while on the go. For these reasons, they reduce their communication and Internet use to a strict minimum while travelling. The source of these behaviours is not a limited availability of technology but rather the poor quality of the context in which it is utilised. An interviewee (a delivery manager at Hewlett-Packard) mentioned, "The fact that I am travelling should not impact my work day. I prepare the tasks to be done the night before. I use travel time to browse my e-mails and answer the easiest or most urgent ones. As soon as I arrive at my hotel, I switch on my PC and connect to HP intranet to work on more complex tasks or documents.

CONCLUSIONS

How do people stay connected while on the go?

Our study showed that EMP are much more eager than AMP to have the possibility to be connected on the go. They are indeed much better equipped and informed than AMP in terms of ICT. Nevertheless, when it comes to the real usage of this equipment, EMP and AMP are very similar. People are not reachable anytime, through any channels. They have also a very selective usage of their laptops and internet depending on the situation. Factors pushing towards more reachability and mobile internet usage are how close people want to remain to their beloved ones during working time, and how dependant one is on new customers. Factors leading to less reachability and mobile internet usage are unappropriate conditions to communicate and work properly and efficiently, social practices, and high prices.

How could it evolve?

Personal availability and accessibility will continue to increase for everyone. However, succesful future ICT services should enable to control these parameters more easily for both, outgoing and incoming communication. Services should, for example, provide options of knowing the availability of relatives in order to feel closer to them (presence information). Easy and remote call forwarding should identify the caller. Tariffs and potential charges should be made more transparent (e.g. visible on phone displays or audible through dial tones). Easy mobile e-mails from several e-mail accounts or email alerts would also enhance user control.

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